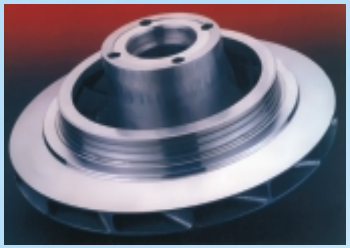
Spare Parts for Compressors



Closed centrifugal rotor for natural gas compression Supercharger Set GTC 1000

Open centrifugal rotors for CCAE 21-300 Compressor

Atomization centrifugal rotor assembly compressor

Rotor assembly stage II for CCAE 21-300 Compressor

Separating plan bearings with oscillating sectors

Service for Rotary Units

Service, revision, major and current repairs, technical assistance on starting for:

- air centrifugal compressors electrically powered with flows up to 25,000 Nm^3/h (CCAE, INGERSOLL-RAND, VRK, DEMAG type etc);
- centrifugal air blowers;
- turbo compressor units;
- other rotary units (turbo blowers, centrifugal pumps, self-starter).

Diagnosis services to ensure predictive maintenance for the above mentioned units, through:

- boroscoping;
- supplementary vibration measurements.

Dynamic balancing services for rotors weighting 1 - 150 kg.

"Marketing studies and plan in order to promote products and services of COMOTI"

- project co-financed by the European Regional Development Fund -

ASQ MANAGEMENT S.R.L.

September 2010

"This report does not necessarily represent the official position of the European Union or the Romanian Government"

EUROPEAN UNION

ROMANIAN GOVERNMENT

Structural Instruments 2007-2013

Natural Gas and Air Centrifugal Compressors

Sectorial Operational Programme

"Increase of Economic Competitiveness"

- co-financed by the European Regional Development Fund -

"Investment for your future"

COMOTI
ROMANIAN RESEARCH & DEVELOPMENT INSTITUTE FOR GAS TURBINES

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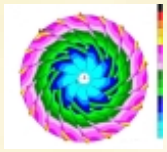
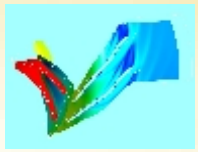
www.comoti.ro

Electrically actuated Air Centrifugal Compressors

A full range of air centrifugal compressors to supply industrial oil-free compressed air, absolutely clean.

Range of application

Supply of technological air for:

- the major industrial consumers;
- the specific processes in petrochemical, metallurgy and machine building industries, etc.;
- oil lifting processes by underground combustion;
- fluidizing the combustion beds in power plants.

Functional and constructive parameters

RATED PARAMETERS *)	COMPRESSOR TYPE				
	CCAE 9-125	CCAE 9-144	CCAE 9-300	CCAE 12-300	CCAE 21-300
Discharge pressure (bar abs)	9.2	9.2	9.2	12	21
Flow (Nm^3/h)	5.200	6.000	12,000	12,000	12,000
Discharge temperature (°C) (with end cooler)	40	40	40	40	40
Discharge temperature (°C) (without end cooler)	110	110	120	110	110
Power at the electric motor shaft (kW)	645	645	1.050	1,400	1,650
Number of compression stage	3	3	3	4	5
Dimensions (mm x mm x mm)	5,115 x 2,080 x 2,050	5,115 x 2,080 x 2,050	6,150 x 2,450 x 2,450	6,150 x 2,450 x 2,450	6,150 x 2,450 x 2,450
Gross weight (kg)	7,500	7,500	24,000	26,000	27,000

* the parameters are calculated for Pa = 1.013 bar and Ta = 20°C

Environment protection

- Non - polluting (electrically driven);
- Noise level: 80 dB (A).

Environment conditions

- Climate: temperate continental;
- Inlet air temperate: -30 ÷ +40° C;
- Relative humidity: max. 80%;
- Altitude: 0 ÷ 1,000 m.
  COMOTI can provide upon request compressors for operation in particular environmental conditions (marine, tropical etc.).

Installation conditions

- Anti-vibration foundation;
- Energy supply: 6kV / 50 Hz;
- Water cooling;
- Light building construction.

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Turbo & Electrically actuated Centrifugal Natural Gas Compressors

- **GTC** for gas turbine
- **ECG** for electric drive



An optimal solution, technically and economically, to achieve compression of natural gas.

Range of application

To compress natural gas in the technological processes, to boost oil accompanying gas pressure in wells as well as to boost gas pressure in medium and high pressure pipelines or in natural gas transport and distribution stations.

Functional and constructive parameters

PARAMETERS	COMPRESSORS TYPE	
	1.5 / 7.5 - 250	4.5 / 45 - 380
Inlet pressure (bar abs)	1.5 - 1.8	4,5
Discharge temperature (bar abs)	7.5	45
Inlet temperature (°C)	10 - 20	10 - 20
Discharge temperature (without a cooler) (°C)	100 - 110	110 - 115
Discharge temperature (with a cooler) (°C)	40 - 50	40 - 50
Max. Flow (Nm^3/h)	10,500	15,850
Inlet power at max. discharge temperature (kW)	930	1,650
Number of compression stages	2	3
Dimensions (L x l x h) (mm x mm x mm)	10,800 x 3,300 x 3,000	

Environment protection

- Non - polluting (electrically driven);
- Noise level: 90 dB (A).

Installation conditions

- Anti-vibration foundation;
- Power supply: 6 kV, 50 Hz line and power transformer for electric drive and three phase 380 V line;
- Natural gas supply for 14 ÷ 20 bar pressure combustion for gas turbine;
- Light building or outdoor, in construction containerized version.

www.comoti.ro

Natural Gas Compression Installation equiped with Supercharger Set GTC 1000

Țicleni Unit - OMV PETROM S.A., TÂRGU JIU Branch

At the moment, there is a Supercharger Set **GTC 1000** within Țicleni Unit - T\rgu Jiu, that compresses natural gas obtained by extracting crude oil from oil fields in order to deliver it to de-gas installations and/or to high pressure compression installations for gas lift process, used within extraction units or to be delivered in main pipelines.



Electrical Centrifugal Gas Compressor ECG 7-250

The **ECG 7-250** Set has been validated in April 1999, in the S.P. Țicleni unit - of OMV PETROM Group, totaling 12,000 functioning hours, with an usage percentage of 92%.




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